









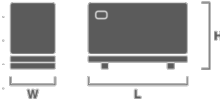
HEAVY RANGE

GENSET 800 KVA PERKINS / GRUPEL

1. MAIN FEATURES

T	Three-phase		Diesel
	Perkins / 4006-23TAG3A/I		Grupel / 404GB800
	Grupel / G545	Hz	50 Hz
	1500 r.p.m.	V	400 V
cos φ	0.8		1250 A
Standby Power(ESP)	880 kVA		704 kW
Prime Power (PRP)	800 kVA		640 kW
Continuous Power(COP)	-		-

SOUNDPROOF

Length (L)	5820 mm	
Height (H)	2890 mm	
Width (W)	2170 mm	
Weight	8316 kg	
Fuel tank daily capacity	1000 L	
Acoustic pressure level @ 1m		91 ± 2 dB(A)
Acoustic pressure level @ 7m		83 ± 2 dB(A)

2. ROOM INSTALLATION

EXHAUST SYSTEM	50 Hz		
	COP	PRP	ESP
Exhaust gas temperature (°C)	-	500	500
Exhaust gas flow (m³/min)	-	193	193
Evacuated heat (kW)	-	500	565
Maximum back pressure (kPa)		6	
Exhaust silencer attenuation (dB)		18-25	
Output diameter (mm)		-	

VENTILATION SYSTEMS	50 Hz		
	COP	PRP	ESP
Combustion air flow (m³/min)	-	69	73
Cooling airflow (m³/min)		870	
Maximum load losses (Pa)		300	
Alternator cooling air flow (m³/min)		94.92	

RADIATION	50 Hz		
	COP	PRP	ESP
Engine (kW)	-	80	90
Alternator (kW)	32.64	32.64	35.9



3. ENGINE SPECIFICATIONS

GENERAL SPECIFICATIONS	50Hz
Model	4006-23TAG3A/I
Emissions (UE/USEPA)	Not applicable / Not applicable
Performance grade	G2
Operating method	4 stroke
Fuel type	Diesel
Refrigeration system	Closed water circuit / antifreeze
Aspiration system	Turbocharged
Injection system	Direct
No. and Cylinder arrangement	6 In-line
Displacement (L)	22.921
Cylinder bore (mm)	160
Cylinder stroke (mm)	190
Compression ratio	13,6:1
Regulation	Electronic
Rotation speed (r.p.m.)	1500
Piston speed (m/s)	9.5
Gross power COP (kWm)	-
Gross power PRP (kWm)	705
Gross power ESP (kWm)	786
Fan Power (kWm)	- / 30 / 30
Net Power COP (kWm)	-
Net Power PRP (kWm)	675
Net Power ESP (kWm)	756
BMEP COP (kPa)	-
BMEP PRP (kPa)	2452
BMEP ESP (kPa)	2734



CONSUMPTION	50 Hz	
Fuel consumption	l/h	g/kWh
ESP	193	212
PRP	172	210
COP	-	-
75%	131	210
50%	91	213
Oil consumption	< 0.25% of fuel consumption	

REFERENCE CONDITIONS	
Temperature (°C)	25
Atmospheric pressure (kPa)	100

CAPACITY (°C)	
Coolant (L)	120
Oil (L)	113.4

STARTING SYSTEM	
Voltage (V)	24
Power (kW)	7.5
Battery (Ah)	220

4. ALTERNATOR SPECIFICATIONS

GENERAL SPECIFICATIONS	
Model	404GB800
Phases No.	Three-phase
Protection	IP23
Insulation	H
Temperature rise	H
R.F.I. telephone interference	THF < 2%
R.F.I. Suppression	BS EN 61000-6-2 /6-4,VDE 0875G, VDE 0875N
Coupling	Flexible disks
Support	Single bearing



Wave form distortion with no load	< 1,5%
Wave form distortion with balanced linear load	< 5%
Winding Leads	6
Excitation (standard/optional)	PMG / -
AVR Model (standard/optional)	MX341B / -
Voltage Regulation (standard/optional)	± 0,5 % / -
Icc (standard/optional)	3In:10s / -

PF (cos Ø)	Phase	Voltage (V)	Power PRP/ESP (kVA)	Efficiency PRP/ESP (%)	Xd	X'd	X''d
0.8	Three-phase	400	800 / 880	94.9 / 94.9	2.7	0.23	0.16



5. CONTROL PANEL



GENSET	Grupel G545
Voltage (F-F / F-N)	● / ●
Current intensity	●
Frequency	●
RMS Values	●
Generator phase sequence	●
Generator earth current [a]	○
No. of registered events	400
Real time clock	●
PIN Protection	●
kWh, kVAR, kVAh, kVARh, cos Ø	●
Synchroscope [i]	○
No. of available outputs [b]	4
Indication of alarms on LCD	●
Hours of engine operation	●
Total no. of LED indicators	15
No. of LED alarms	4
Sound signalling alarms	-
Schedule	●
Fuel level	●

ELECTRICAL GRID	Grupel G545
Voltage (F-F / F-N)	● / ●
Current [a]	○
Frequency	●
kVA, kW, cos Ø [a]	○
Inversion control between main-group	●

PROTECTIONS AND ALARMS	Grupel G545
High / low battery voltage	A
Failure in battery charge alternator	A
Failure to stop	A/S
Failure to start	A/S
Low fuel level	A/S
Overload	A/S
Earth leakage	A/S
Asymmetry between phases	A/S
Maintenance	A/S
High / Low generator frequency	A/S
Engine overspeed	A/S
Engine underspeed	A/S
Generator overvoltage	A/S
Generator undervoltage	A/S
ECU Alert (if applicable)	A/S
Low oil pressure	A/S
Low level of radiator water [f]	A/S
Engine high temperature	A/S
Fuel leakage/ theft	A



6. CONTROL PANEL

ENGINE	Grupel G545	APPLICATIONS	Grupel G545
Engine speed	●	Automatic or manual start-up	●
Low oil pressure protection	●	Remote start by dry contact	●
Oil pressure reading [c]	○	Automatic by mains failure	●
High temperature engine protection	●	Alternating with timesharing	●
Engine temperature reading [c]	○	Multi-generators synchronization and load sharing (max. 48 generators) [i]	○
Engine battery voltage	●	Generator-Mains in synchronism and load sharing (1 generator and 1 mains) [i]	○
Intensity of the engine battery [d]	○		
Fuel Consumption [e]	●		
Low level of radiator water [f]	○		
Scheduled engine maintenance	●		
COMMUNICATION	Grupel G545	OPTIONAL EXPANSIONS	Grupel G545
USB female type B (max. 6m)	●	G-08 (8 dig. inputs)	○
USB female type A [g]	○	G-06 (8 relay outputs)	○
RS232 port (max. 15m)	-	G-GSM (GSM and/or GPS by MLAT)	○
RS485 port (max. 1,2Km)	●	G-ETH (ethernet module)	○
Ethernet port RJ45 [g]	○	G-ETH (ethernet module according to SNMP protocol)	○
GSM + location via MLAT [h]	○	G545 (mirror controller, maximum distance 1km)	○
ModBus RTU protocol	●	G175 (convert QTC into QTA)	○
ModBus TCP protocol [g]	○	G545 (convert QTC into QTA)	○
SNMP protocol [g]	○		
CAN port (max. 40m)	●		
MSC port (max. 240m) [i]	○		
PLC functionality	●		
Legenda		STANDARDS	
● Available		Working temperature	-30 ≤ °C ≤ 70
○ Optional		Protection index (when assembled with sealing gasket)	IP65 - Quando montado com junta de vedação
- Not available		Degree of humidity (during 48hr)	93%, 40°C durante 48h
A Warning Alarm			
S Stop alarm			
[a] Need additional CT			
[b] No. of outputs available for standard configuration. The outputs do not include relays and additional terminal connections.			
[c] If the information is not provided by the engine-ECU, you need an additional sensor			
[d] Needs additional ammeter			
[e] If information provided by the engine ECU			
[f] Required additional sensor			
[g] Requires G-ETH			
[h] Requires G-GSM			
[i] Requires G-Sync			

Dimensions and weights guidelines. Environmental reference conditions: 100kPa, 25 °C, 30% relative humidity and fuel temperature below 40 °C. Power ratings according to ISO 8528-1:2018.

Emergency power (ESP): Maximum power available to supply variable loads for a maximum period of 200h/year. The average load factor in 24h of operation must not exceed 70% of the ESP regime. It does not allow overload.

Prime power (PRP): Maximum power available to supply variable loads for an unlimited number of hours. The average load factor in 24 hours of operation must not exceed 70% of the PRP rating. Allows an overload of 10% for a maximum period of 1 hour every 12 hours of operation. Overloading may not exceed 25 hours/year.

Continuous power (COP): Maximum power available to supply constant loads for an unlimited number of hours per year, between the maintenance intervals and environmental conditions advertised by the manufacturer.

These specifications are subject to change without notice.

DISTRIBUTOR